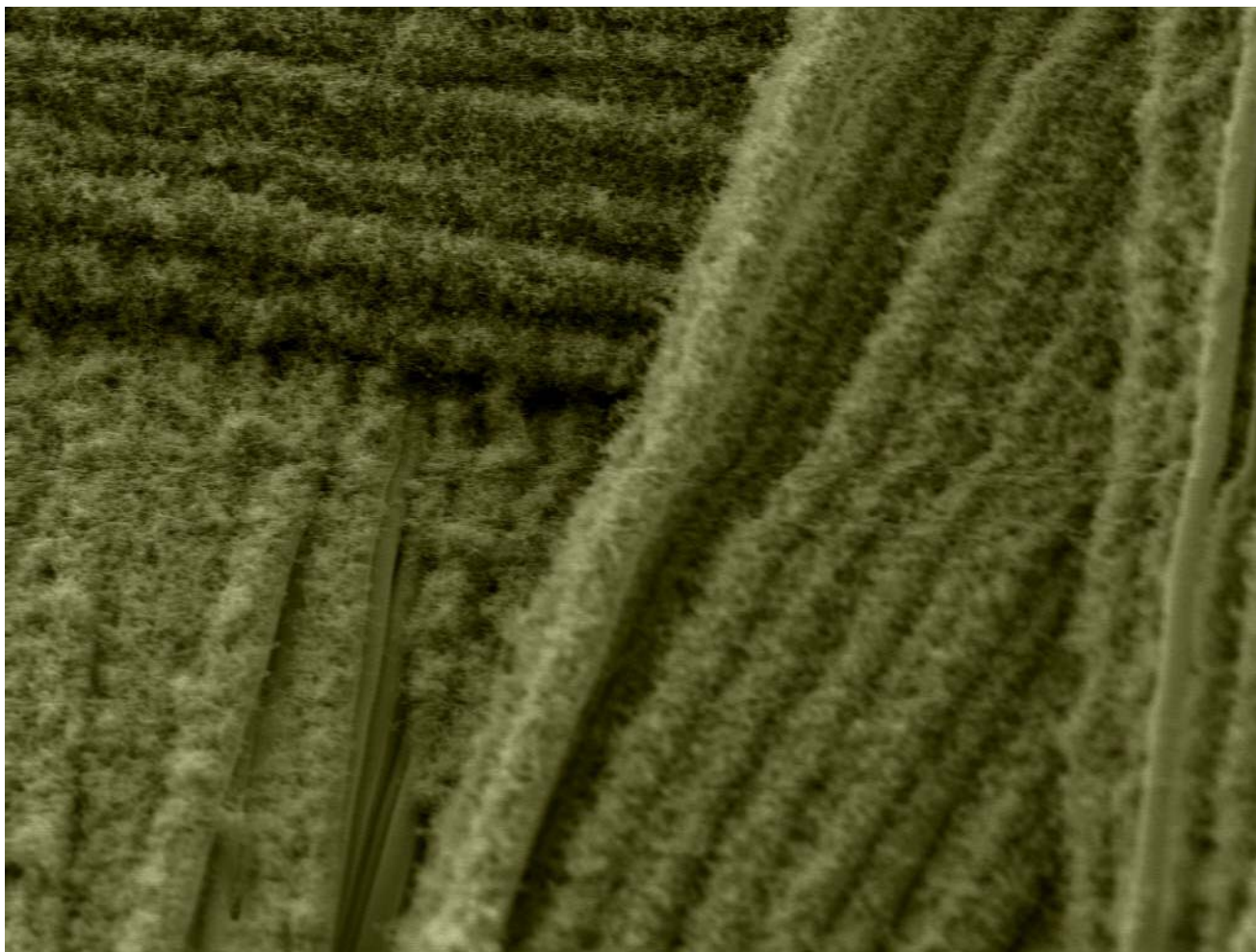


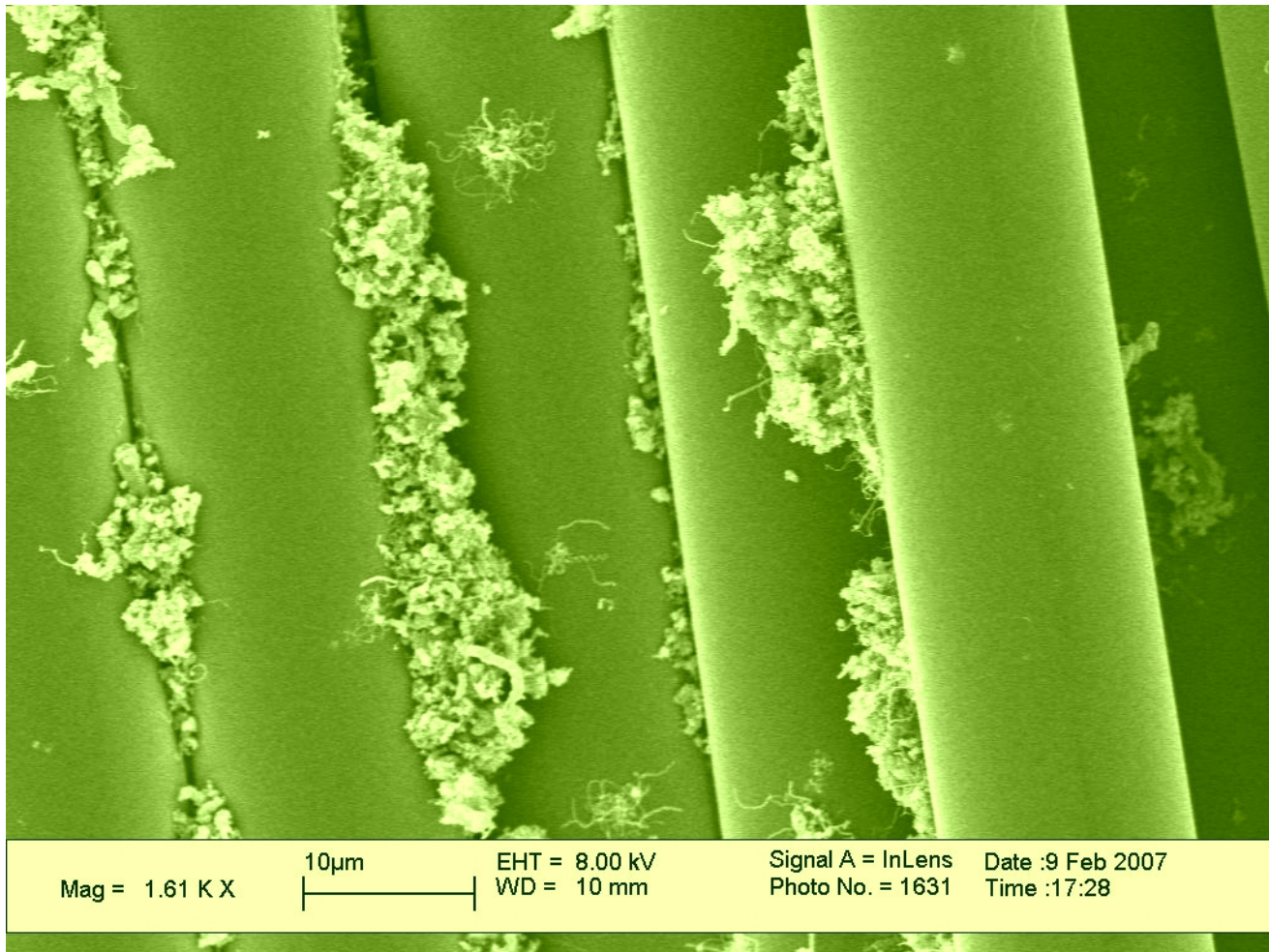
# **Growth of Multiwalled Carbon Nanotubes on Carbon Fabric**

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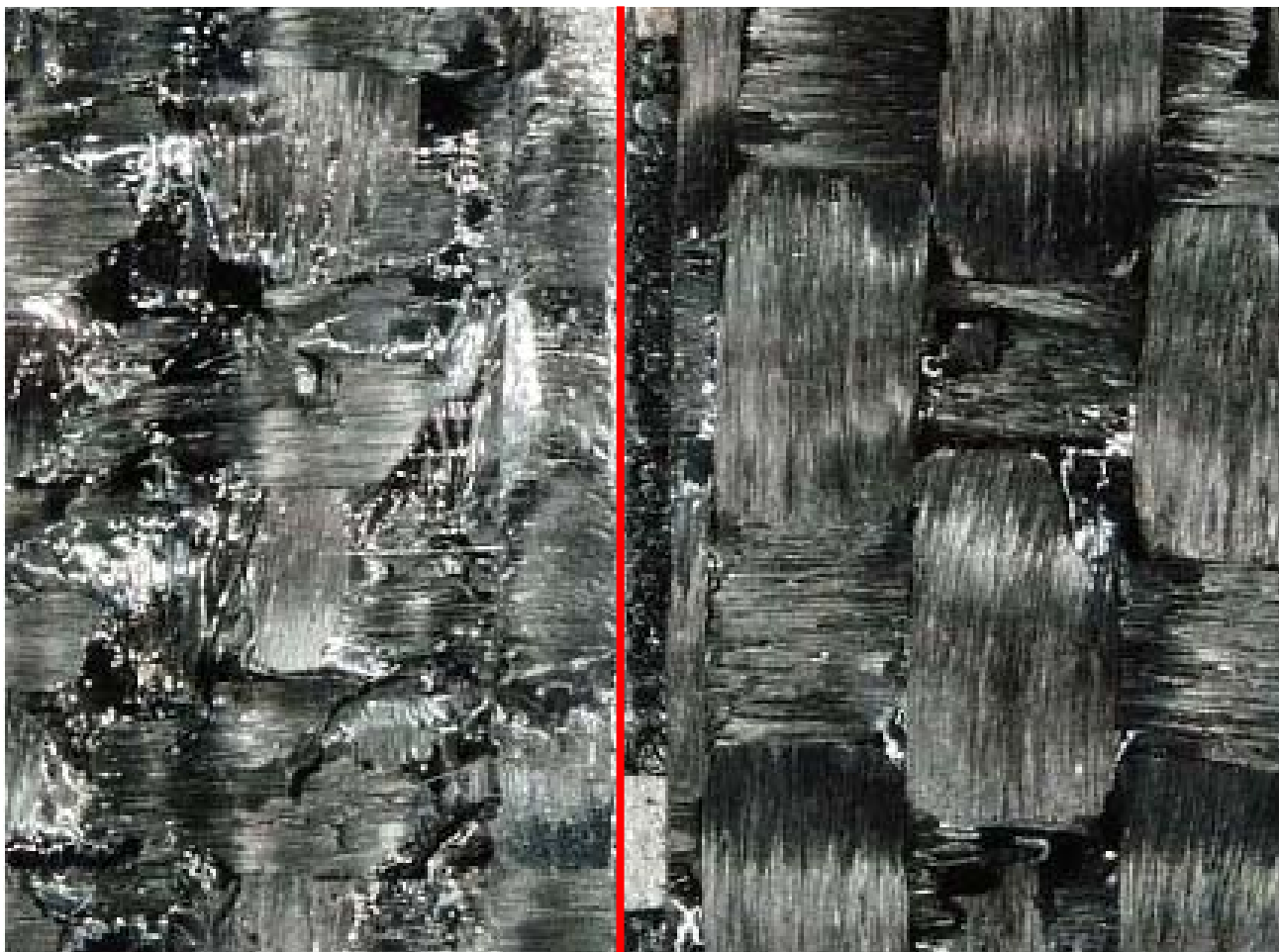
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<http://nano.gtri.gatech.edu>**



Studies have shown that the procedure used has a high success rate of growing CNTs on carbon fabrics. Above is a sample of carbon fabric “furry” with CNTs.



Above is an example of poor CNT growth on basalt fabric.



Carbon fabric functionalized with CNTs demonstrates superior performance to unprocessed fabrics in stress tests.

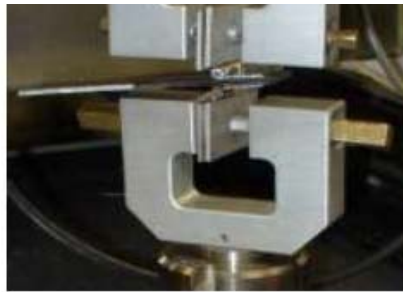




Denton Thermal Evaporation Unit



Chemical Vapor Deposition Unit

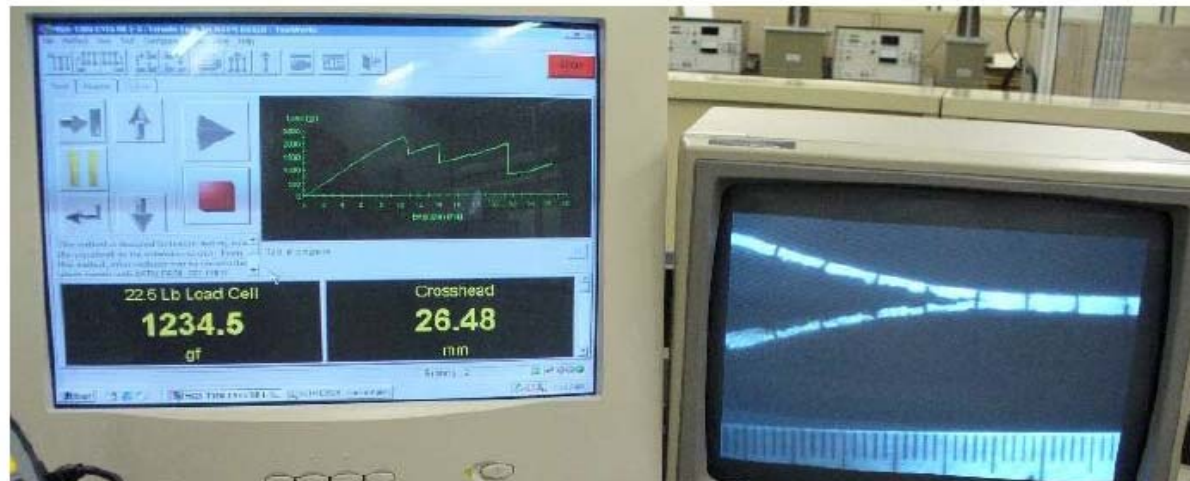


(a) closed



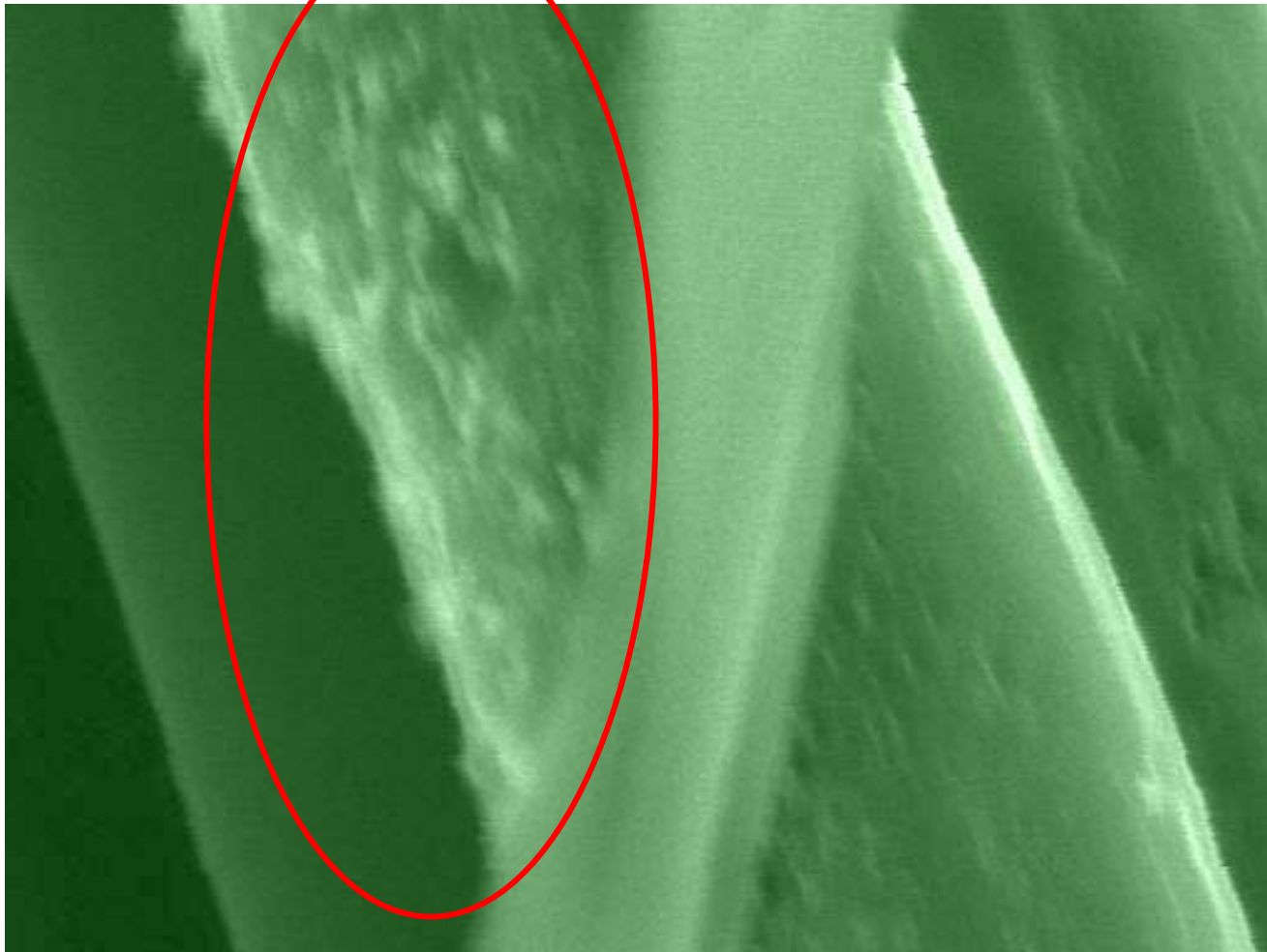
(b) open

**Figure 1: Sample testing under ASTM D 5528 for fracture toughness.**



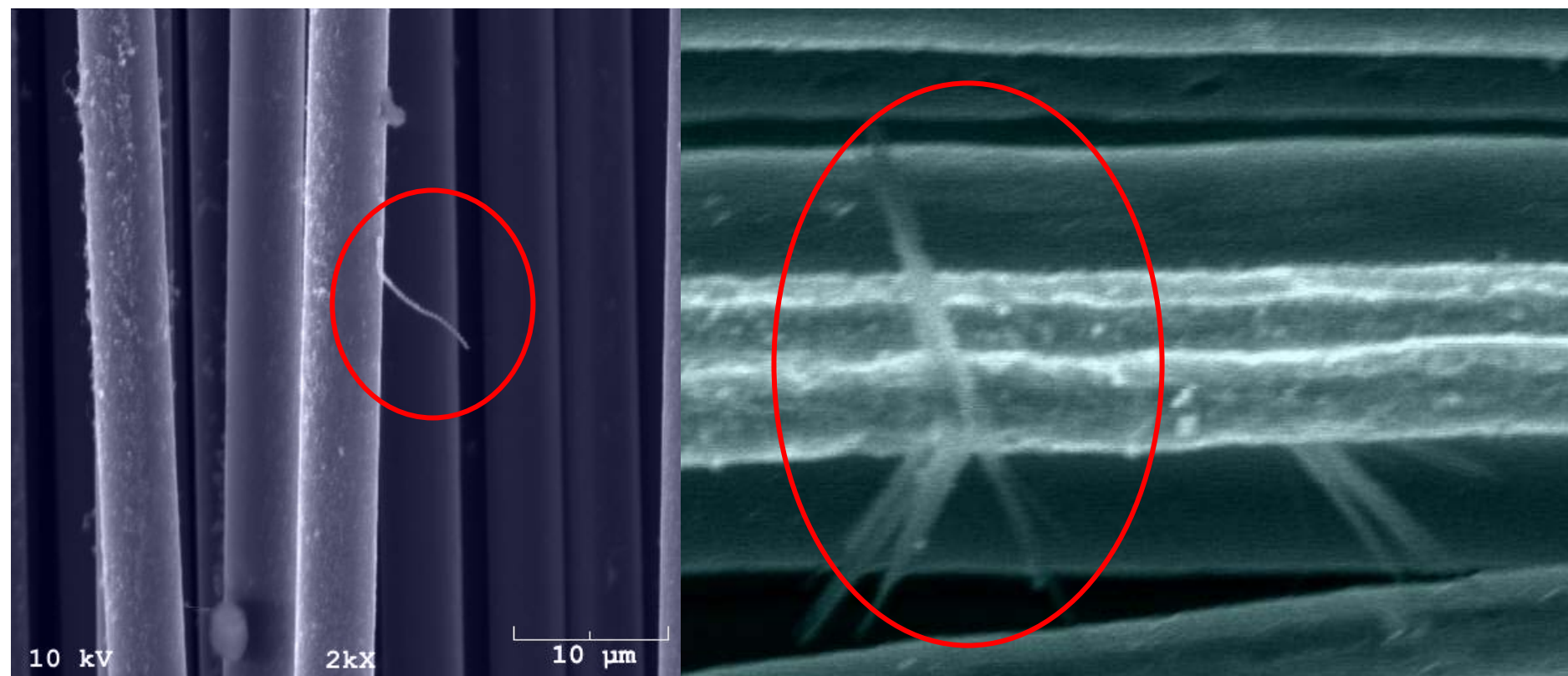
Testing equipment at the Milliken Labs. Samples functionalized with CNTs showed a 46% increase in fracture toughness under stress testing.





Damage done to the surface of the carbon fiber by the washing process.





Growth that appeared on the fabric samples isn't likely to be CNTs.



Growth of CNTs on a scrap piece of Si wafer.